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3. $\sqrt{1^2 + (-3)^2 + (-1)^2} = \sqrt{11}$

4. $(0\vec{\imath} + 2\vec{\jmath} + 1\vec{k}) + (1\vec{\imath} + (-3)\vec{\jmath} + (-1)\vec{k}) = 1\vec{\imath} + (-1)\vec{\jmath} + 0\vec{k} = \vec{\imath} - \vec{\jmath}$

6. $2(1\vec{\imath} + 6\vec{\jmath}) + ((-2)\vec{\imath} + 9\vec{\jmath}) = 21\vec{\jmath}$

8. $2(0\vec{\imath} + 2\vec{\jmath} + 1\vec{k}) + 7(-3\vec{\imath} + 5\vec{\jmath} + 4\vec{k}) - 5(1\vec{\imath} + (-3)\vec{\jmath} + (-1)\vec{k}) = -26\vec{\imath} + 54\vec{\jmath} + 35\vec{k}$

17. $1\vec{\imath} + 4\vec{\jmath} + 0\vec{k} = \vec{\imath} + 4\vec{\jmath}$

18. Because the squirrel is at position $(2, 4, 1)$, the desired vector is $(2\vec{\imath} + 4\vec{\jmath} + 1\vec{k}) - (2\vec{\imath} + 4\vec{\jmath} + 0\vec{k}) = \vec{k}$.

19. $(1\vec{\imath} + 4\vec{\jmath} + 0\vec{k}) - (2\vec{\imath} + 4\vec{\jmath} + 0\vec{k}) = -\vec{\imath}$

20. $(2\vec{\imath} + 4\vec{\jmath} + 1\vec{k}) - (1\vec{\imath} + 4\vec{\jmath} + 0\vec{k}) = \vec{\imath} + \vec{k}$

30. $\vec{u} = -2\vec{w}$, so $\vec{u}$ and $\vec{w}$ are parallel (in opposite directions); and $\vec{q} = 4\vec{v}$, so $\vec{q}$ and $\vec{v}$ are parallel (in the same direction).